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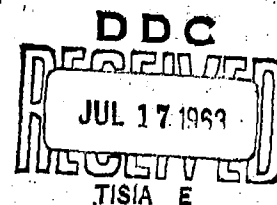
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ABSTRACTS FROM EAST EUROPEAN
SCIENTIFIC AND TECHNICAL JOURNALS

No. 196

(Chemistry Series)

410673



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ABSTRACTS FROM EAST EUROPEAN
SCIENTIFIC AND TECHNICAL JOURNALS

No. 196

- Chemistry Series -

This report consists of abstracts of articles from the
East European scientific and technical journal listed in
the table of contents below.

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RUMANIA

Revista de Chimie, Bucharest, Vol 14, No 3, Mar 63

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[RUMANIA

RASEEV, S.D. and CLEMENS, K. [affiliation not given]

"Some Theoretical Problems of Pyrolysis."

Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963, pp 123-129.

Abstract [Authors' English summary modified]: A discussion of some theoretical problems of pyrolysis at low pressure are discussed in order to derive maximal yields of ethylene and propylene. The action of water vapor as inert diluent is studied. It is calculated that for the pyrolysis of quartz sand grains with diameters of 0.1 to 1 mm in fluidized layers the reaction time is of the order of thousands of a second and thus negligible in comparison with the total reaction time, which is on the order of 1 second.

Includes 11 figures and 23 references of which 4 Rumanian, 6 Russian, and 13 British or American.

[1/1

[RUMANIA

IONESCU, E. and CHIRITA, Gh. [affiliation not given]

"The Ammoniation of Superphosphate with Gaseous Ammonia on Granulating Plates."

Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963, pp 130-136.

Abstract [Authors' English summary modified]: Experimental tests showed that best results were given if gaseous ammonia was introduced on the plate under the superphosphate layer, during granulation, and sprayed with sulphuric acid. Because of the increased mechanical resistance of the granules, drying was not required. For a 2.2 to 3.2 percent ammoniation, the ratio of water-soluble P_2O_5 and total P_2O_5 was maintained at 72 percent, and that of assimilable P_2O_5 and total P_2O_5 at 92 percent.

Includes 3 figures, 8 tables and 10 references, of which 6 American.

[1/1

[RUMANIA

STOICA, Rodica and LUPU, Angela [affiliation not given]

"Obtaining of Superior Alkylamines from Acids Resulting from the Oxidation of Paraffinic Hydrocarbons."

Bucharest, Revista de Chimie, Vol.14, No 3, Mar 1963, pp 137-140.

Abstract [Authors' English summary modified]: Describes an easily industrializable technique for obtaining higher aliphatic amines from paraffin oxidation acids. The process consists of nitrile preparation followed by catalytic hydrogenation. The reaction mechanism and the optimum conditions are described. Among the uses suggested for the resulting amines is as flotation collecting agents for potassic ores.

Includes 4 figures, 6 tables and 8 references, of which 4 are to patents (2 French, 2 USA), 3 to US journals, and one to an Eastern source.

[1/1

[RUMANIA

MACAVEI, Gh. [affiliation not given]

"Some Considerations on the Ore Agglutination Process. II. Establishing the Similitude Relation for Determining the Dimensions of Granulation Plates."

Bucharest, Revista de Chimie, Vol 14, No 2, Mar 1963, pp 141-147.

Abstract [Author's English summary modified]: Describes a calculation system to be used for the determination of the technological dimensions of granulation plates. The "similitude equation" for such apparatus is derived and its use is illustrated.

Includes 6 figures, 5 tables and 3 Rumanian references.

[1/1

[RUMANIA

GRIGORIU, I. [affiliation not given]

"The Use of Exergy Balance in Designing Chemical Equipment."

Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963,
pp 148-155.

Abstract [Author's English summary modified]: Recommends that the design of chemical equipment take into account not only the material and energy balances but also the exergy balance, so as to avoid interruptions at high temperatures in the cycle of transformation of heat into mechanical work. The real cycles chosen should be based on theoretical cycles for which no temperature differences are associated with heat exchange, and suitable regenerative cycles must be introduced to reduce the quantities of heat that are not turned into mechanical work.

Includes 19 graphs, 1 table and 9 references, of which 7 are German and 2 Rumanian.

1/1

[RUMANIA

GRUDER, Galia and ANGHEL, Paula [affiliation not given]

"A Method of Obtaining Sulphamic Electrolytic Acid for Lead Refining."

Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963,
pp 156-157.

Abstract [Authors' English summary modified]: The authors synthesized sulphamic acid by a direct reaction between SO_2 and NH_3 followed by the hydrolysis of the ammonium imido-sulphate thus produced. The sulphamic acid is a good substitute for hexafluosilic acid in the electrolytic refining of lead and avoids the toxic atmosphere and equipment corrosion associated with the use of this electrolyte.

Includes 2 tables and 4 references.

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RUMANIA

BALABAN, A.T. [affiliation not given]

"Magic Numbers of Electrons and Nucleons."

Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963,
pp 158-160.

Abstract [Author's English summary modified]: Discusses and compares the numbers of electrons and nucleons giving maximum stability, as based on various interpretations of the periodic system. Also considers the possibility of obtaining transuranic "artificial" elements containing the numbers of electrons or nucleons predicted by these formulas.

Includes 5 tables and 49 references, of which 26 Western, 8 Russian and 5 German.

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RUMANIA

SZANTAI, I. and GHERMAN, Cornelia [affiliation not given]

"A Decontamination Apparatus for Radioisotope Laboratories."

Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963,
pp 161-163.

Abstract [Authors' English summary modified]: Describes the decontamination apparatus built at the Nuclear Medicine Section of Cluj to avoid the accidental contamination of handlers by accidental direct contact or through atmospheric aerosols. The decontaminator is made entirely of plexiglass plates, can be applied to laboratory sinks as fully closed systems, and offers absolute protection against beta radiations. A lead screen may be added when gamma radiation is present.

Includes 3 graphs, 4 photos and 1 German reference.

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RUMANIA

GOLDSTEIN, J. [affiliation not given]

"The Extraction of Selenium and Tellurium from the By-Products of Nonferrous Metallurgy."

Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963, pp 164-167.

Abstract [Author's English summary modified]: Describes a new method for extracting selenium and tellurium from the anode muds obtained in the electrolytic refining of copper. First the tellurium dioxide is separated from the neutral sodium selenite and tellurite solutions; then elementary selenium is separated from the selenious acid by treatment with sulphur dioxide. Tellurium is similarly separated from the mud containing tellurium dioxide by precipitation with sulphur dioxide. Also describes a method for the purification of elementary tellurium that will supply a 99.995 percent pure product.

Includes 5 tables and 1 flow diagram.

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RUMANIA

HEITZ, J. of the Central Laboratory of the Risnov Chemical Plants (Laboratorul Central al Uzinelor Chimice-Risnov).

"The Polarographic Determination of Monomer Vinyl Acetate in Polyvinylacetate Emulsions."

Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963, pp 173.

Abstract [Author's English summary modified]: Describes a polarographic method for the determination of monomer vinylacetate in polyvinyl acetate emulsions. The method is rapid, accurate and of general applicability.

Includes 1 German reference.

1/1

RUMANIA

CHIOTAN, C., SIRBU, I., ZAMFIR, I. and RENTEA, C. [affiliation not given]

"Obtaining of Some Organic Combinations Marked with ^{131}I ."
Bucharest, Revista de Chimie, Vol 14, No 3, Mar 1963,
pp 173.

Abstract [Author's English summary modified]: Describes the methods elaborated at the Nuclear Physics Institute of the RPR Academy for tagging tetraiodophenolphthalein and diiodofluoresceine with radioactive iodine.

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